

**What is claimed is:**

1. A method of starting a brushless DC motor including an armature coil in a stator and field magnets in a rotor, comprising:

      supplying a starting current for said

5 armature coil while said rotor is in a stationary state;

      measuring an induced voltage induced in said armature coil by rotation of said rotor wherein said rotation is caused by said starting 10 current; and

      supplying a drive current for said armature coil in response to said induced voltage.

2. The method according to claim 1, wherein said supplying said drive current includes:

      determining a position of said rotor based on said induced voltage, and

5 deciding said drive current based on said position.

3. The method according to claim 1, wherein said measuring is executed after said supplying said starting current.

4. The method according to claim 1, wherein said measuring is executed during said supplying

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said starting current.

5. The method according to claim 1, wherein  
said supplying said starting current includes:

supplying another starting current for said armature coil, and

5 supplying said starting current when said  
rotor is not rotated by said another starting  
current, and

10 said starting current and said another  
starting current have different waveforms each  
other.

6. The method according to claim 1, further comprising:

detecting a direction of said rotation; and  
stopping said rotor when said direction is  
not a desirable direction.

7. The method according to claim 1, wherein said supplying said drive current includes:

continuously supplying a first drive current for said armature coil till a speed of 5 said rotation becomes a predetermined speed, said first drive current being determined based on said induced voltage, and

supplying a second drive current for said

armature coil after said continuously supplying  
10 said first drive current, a current flow duration  
of said second drive current being controlled  
based on said speed.

8. The method according to claim 1, wherein  
said supplying said drive current includes:

supplying a first drive current for said  
armature coil such that said rotor is rotated  
5 with a maximum torque, till a speed of said  
rotation becomes a predetermined speed; and  
supplying a second drive current for said  
armature coil after said supplying said first  
drive current, a current flow duration of said  
10 second drive current being controlled based on  
said speed.

9. A brushless DC motor comprising:

an armature including an armature coil;  
a rotor including a plurality of field  
magnets;  
5 a power supply unit; and  
a measuring unit, wherein said power supply  
unit supplies a starting current for said  
armature coil while said rotor is in a stationary  
state, and

10 said measuring unit measures an induced

voltage induced in said armature coil by rotation of said rotor, said rotation being caused by said starting current, and

15 said power supply unit supplies a drive current for said armature coil in response to said induced voltage.

10. The brushless DC motor according to claim 9, wherein said power supply unit determines a position of said rotor based on said induced voltage, and decides said drive current based on said position.

11. The brushless DC motor according to claim 9, wherein said measuring unit measures said induced voltage after said power supply unit finishes supplying said starting current.

12. The brushless DC motor according to claim 9, wherein said measuring unit measures said induced voltage while said power supply unit supplies said starting current.

13. The brushless DC motor according to claim 9, wherein said power supply unit supplies another starting current for said armature coil, and supplies said starting current when said rotor is

5 not rotated by said another starting current,  
said starting current and said another starting  
current having different waveforms each other.

14. The brushless DC motor according to claim 9,  
wherein said power supply unit detects a  
direction of said rotation, and stops supplying  
said drive current when said direction is not a  
5 desirable direction.

15. The brushless DC motor according to claim 9,  
wherein said power supply unit continuously  
supplies said drive current for said armature  
coil till a speed of said rotation becomes a  
5 predetermined speed, said drive current being  
determined based on said induced voltage, and  
said power supply unit supplies said drive  
current for said armature coil, controlling a  
current flow duration of said drive current based  
0 on said speed after said speed becomes said  
predetermined speed.

16. The brushless DC motor according to claim 9,  
wherein said power supply unit supplies said  
drive current for said armature coil such that  
said rotor is rotated with a maximum torque, till  
5 a speed of said rotation becomes a predetermined

speed, and

    said power supply unit supplies said drive current for said armature coil after said supplying said first drive current, controlling a 10 current flow duration of said drive current based on said speed.

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